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EXAMINER
AWAD, A

ART UNIT
2675

PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/988,537

Applicant(s)
Ishibashi et al.

Examiner
Amr Awad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 17, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-22 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata (US patent NO 5,579,026) in view of Tosaki (US patent NO. 5,844,530).

As to claim 1, Tabata (figures 1-2) teaches an image observation apparatus (head mounted display) including a main body (1) which has an image display device (7R and 7L); an operational member (controller (11)) which is operated manually in order to give instruction to the image observation device; a detector for detecting a posture of the main body; and a controller (part of the controller (11)) for controlling an image which is displayed on the image display device in response to a signal which is output from the detector; see abstract, column 3, lines 50-63 and column 5, lines 19-55.

Tabata does not teach an embodiment wherein the controller part is provided on the main body. Tabata does not teach that the controller stops controlling the image which is displayed on the image display device when the operational member is operated.

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Tosaki teaches a head mounted display for displaying prescribed images; see abstract. Tosaki (figure 14) teaches that in case the user needs to stop the game, a pause switch is depressed on the control pad (201) and temporarily stop the game (i.e., not allowing changing the image which is displayed on the image display device). If the game is temporarily stopped, the pause button on the control pad (201) should be depressed again to cancel the pause mode; see column 16, lines 22-39.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Tabata's device to include the teaching of Tosaki of having a switch that stops (freezes) the changing of the image on the display so as motivated by Tabata, to enable the user to temporarily stops the game if needed and return back to it from where he or she left it.

Note that the combination of Tabata and Tosaki fairly teaches the claimed limitations because claim 1 discloses that the controller does not allow changing the image which is displayed on the image display device in response to the signal which is output from the detector when the operational member is operated. As discussed above Tabata teaches having a detector that detects the posture of the device. The operational member may any operation that can be performed on the device. Considering that, the operational member reads on Tosaki's pause switch, because once, the pause switch is operated, no changing in the image is allowed.

As to the claimed limitation that the operational member is provided on the main body, as can be seen from Applicant's figure 1, the device not a head mounted display. Both Tabata and

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Tosaki devices are head mounted. Thus, the obvious position of the operational switches to be in the user's hand. However, if either Tabata or Tosaki device is to be surface mounted display, the obvious design to the switches to be provided on the main body so that to add to the portability of the device. Furthermore, to allow easily operation of the device. Furthermore, Tosaki (figure 14) shows the user operating the device using a device held in the user's hand.

As to claim 23, the claim is substantially similar to claim 1. Furthermore, as can be seen in figure 14, Tosaki shows the device comprising a portion held by the user while the user is observes the images being displayed.

As to claim 25, the claim is substantially similar to claim 1, furthermore, as can be seen in figure 14, Tosaki shows a portion of the device that is handheld and that includes a pause switch (201) which provides an instruction to the image observation to prevent circuitry which provides the image display device with context from changing the displayed image. For that, Tosaki teaches that the pause switch is depressed on the control pad (201) and temporarily stop the game (i.e., not allowing changing the image which is displayed on the image display device). If the game is temporarily stopped, the pause button on the control pad (201) should be depressed again to cancel the pause mode; see column 16, lines 22-39.

3. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata and Tosaki as applied to claim 1 above, and further in view of Takasu Tomoji (Japanese patent

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Publication NO. 03056923A; hereinafter referred to as Takasu) (provided by the Applicant in the information disclosure statement).

Note the discussion of Tabata and Tosaki above. Tabata and Tosaki do not expressly teach a camera which forms the image which displayed on the image display device (image forming device) (claim 4) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera.

Takasu (figure 1) teaches a head mounted display device wherein the a camera which forms the image which displayed on the image display device (image forming device) (claim 4) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera; see abstract.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Takasu's teaching of having a camera to form the displayed images and wherein the controller controls the image by controlling the posture of the camera to Tabata's modified device so as motivated by Takasu, to avoid manually controlling the viewing direction.

4. Claims 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tosaki and Tabata as applied to claims 23 and 25 above, and further in view of Kodama (US Patent No. 6,124,843).

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As seen above, Tabata and Tosaki teach all the limitations of claims 24 and 26 except the citation that the observation device includes an image forming device (Camera) which forms the image which is displayed on the image displayed device by controlling the posture of the camera.

However, Kodama (figure 10) teaches a head mounting type image display system main body has a fixed photographing camera 32 for photographing a scene in front of the operator (observer) 1. The photographing range of the photographing camera 32 roughly matches the observation field angle of the external field of the operator (observer) 1. The photographing range of the photographing camera 32 is preferably appropriately changed by, e.g., zooming upon movement of an optical system (not shown) in the photographing camera 32 since the field angle can be adjusted; see column 21, lines 5-13.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Kodama of having a camera to be incorporated to Tabata's modified device so as motivated by Kodama, the observer can observe an image photographed in front of him.

Allowable Subject Matter

5. Claims 5-20 and 21-22 are allowed.

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Response to Arguments

6. Applicant's arguments filed April 17, 2001 have been fully considered but they are not persuasive.

Applicant (middle of page 6) argued that in the context of this patent, it is clear that the game stops, but this does not mean the image would stop moving under the control of the head position detecting mechanism. Applicant argued that in column 16, it is disclosed that the images are already stopped by movement of the visor, prior to the game pause switch being pressed, and that it is clearly the game pause switch does not cause the controller to prevent "allowing changing the image which is displayed" as recited in claim 1. The Examiner respectfully disagrees.

There is no disclosure in the claim that recites "the image would stop moving under the control of the head position detecting mechanism". The claim simply recites "the controller does not allow changing the image which is displayed on the image device in response to the signal which is output from the detector when the operational member is operated". This is a clear teaching that no changing in the image occurs *when the operational member is operated*. It is the operational member that would stop changing the image. Examiner asserts that there is a difference between stopping the image by the movement of the visor and temporarily stopping the image using the pause switch. The difference is simply similar to the stop button and the pause button in a VCR.

If Applicant's argument is correct, then there will be no need for the pause switch, and Tosaki's disclosure which recites "It is also possible at this time to depress the pause switch on

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the control pad 201 and to temporarily stop the game” would be making no sense. However, if the pause switch is given the known meaning of the pause switch and which is disclosed by Tosaki “temporary stop the game”, then the pause switch taught by Tosaki would fairly reads on the claimed limitation as claimed in claim 1.

Applicant (bottom of page 6 and top of page 7) argued that even if the pause the game when images were being displayed, it would only make sense that the images would be still changeable under the control of the head orientation sensors, and only paused. Examiner respectfully disagrees. Applicant is dividing the images and games into two separate entities. It is respectfully submitted that the images and the game are the same thing. Even if Applicant’s argument is correct, this does not change the fact the fact that the claim only disclosed that the image does not change. This image can be read on Tosaki game.

As to Applicant’s argument with respect to claims 23 and 25-26, the claims are addressed in the office action above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any response to this final action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606, (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703) 308-8485. The examiner can normally be reached on Monday--Friday from 7:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached on (703) 305-4718.

Amr A. Awad

Patent Examiner

June 20, 2001.



ALMIS R. JANKUS
PRIMARY EXAMINER